TIMELY FARM TOPICS 9a
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HIGH LIGHTS OF RECENT FARM RESEARCH

Broadcast by Dr. Eugene C. Auchter, Administrator, Agricultural Research, Administration; Ernest Moore and M. L. DuMars, Office of Information, U. S. D. A. Script prepared by Josephine Hemphill. Recorded Wednesday, December 20, 1944. Time: Ten minutes and ten seconds without announcer's parts.

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ANNOUNCER: (LIVE) And now, by transcription, a visit with Ernie Moore and Duke DuMars -- of the United States Department of Agriculture, Washington, D. C.

TRANSCRIPTION

ERNIE MOORE: Today we're in the main building of the Department — across the street from the Washington Monument. Duke and I are in the Office of Dr. Eugene C. Auchter -- the man who heads up research in the largest agricultural research agency in the world —

DUKE DUMARS: The United States Department of Agriculture.

MOORE: Right. Dr. Auchter will be here any minute now, and we're going to ask him some question.

DUMARS: Ernie, what're all these gadgets here on his desk?

MOORE: Aren't they all connected with farm research?

DUMARS: Peanut shells?

MOORE: Sure!

DUMARS: Waxed paper bags?

MOORE: Certainly.

DUMARS: Bottle caps?

MOORE: Where'd you see bottle caps?

DUMARS: Right next to the inkwell. You don't suppose Dr. Auchter's hobby is collecting caps from soda-pop bottles.

MOORE: I certainly do not!

DUMARS: You never can tell. Wonder what that thing is over there.

MOORE: Where?

DUMARS: That metal thing. Looks like a small bomb.

MOORE: Why that's a —— Hello, Dr. Auchter!

DR. AUCHTER: Hello! What's on your minds?

MOORE: We're after some high lights.

DUMARS: Of recent farm research.

AUCHTER: Don't you know that takes in a lot of territory?

MOORE: Guess you'll just have to limit yourself to a few examples.

AUCHTER: When you get into agricultural research you're including the Department of Agriculture, the big research station at Beltsville, and experimental farms and laboratories all over the country.

MOORE: And State experiment stations?

AUCHTER: Yes, experiment stations of 48 States and of Alaska, Hawaii, and Puerto Rico. Also the universities and other research institutions.

MOORE: All working for the farmer.

AUCHTER: For the farmer and everybody else. They're helping to give this country better plants and animals and better methods of controlling the pests and diseases of plants and animals. Their research is helping to raise the nutrition level of our civilians and soldiers. They've given us better soil-management practices and better and cheaper fertilizers.

MOORE: Like that new type of ammonium nitrate?

AUCHTER: That's one example. Since Pearl Harbor, most of our research has been focused on war problems.

MOORE: But a lot of wartime research is going to be mighty useful in peacetime.

AUCHTER: You're right about that. Take this thing here, for example.

DUMARS: Dr. Auchter, what is that thing?

AUCHTER: You haven't seen it before?

DUMARS: Is that the famous aerosol bomb?

AUCHTER: That's it, Duke. But don't worry. It won't explode.

DUMARS: How do you work it?

AUCHTER: Just turn this valve here with your thumb and finger. Like this.

DUMARS: Zowie! Poison gas?

AUCHTER: No — poison fog. It didn't hurt you any.

DUMARS: Just surprised me!

AUCHTER: You ought to see what it does to mosquitoes and houseflies and clothes moths.

DUMARS: Kills 'em?

AUCHTER: A little puff like that would kill every fly and mosquito in this room -- no matter how many.

DUMARS: Is that a fact!

AUCHTER: Sure it's a fact. The aerosol bomb was developed primarily to protect soldiers from mosquitoes that carry yellow fever and malaria. And just to show you how effective it is, one day while the entomologists were testing the bomb in Alaska, where mosquitoes are really bad, an airplane landed somewhere northwest of Nome. As usual, thousands of mosquitoes swarmed into the plane. But just before the pilot was ready to take off again, for Nome, he released a little gas from a bomb like this -- and within five minutes all the mosquitoes were dead.

DUMARS: Wish I had an aerosol bomb for my screened-in porch.

MOORE: Duke, you and I will have to wait a while.

AUCHTER: Yes, civilians will have to wait till the war's over. Well that's one example of wartime research that will be useful in peacetime. Another example is DDT, one of the most potent insecticides ever developed and the world's best control for body lice, which carry typhus. You know how the Army used DDT in Naples last winter?

MOORE: Helped to stop an epidemic in just a few weeks.

AUCHTER: The first time in history that a typhus epidemic has been stopped in winter, when it's at its worst. Now in quite a different field, there is another chemical that's proving of value these days. What do you know about the soil fumigant called "DD"?

DUMARS: Not much, if you're asking me.

MOORE: Don't you know what "DD" stands for?

DUMARS: No.

AUCHTER: It stands for dichloropropane-dichloroprophylene mixture. Under certain soil conditions DD controls root-knot nematodes, and some other plant pests that live in the soil.

MOORE: We used to have plenty of trouble with nematodes in North Carolina.

AUCHTER: They're bad in the South. On cotton and tobacco -- and beans and sweetpotatoes and most other vegetables. But with this new DD mixture, it looks as if they will be able to treat valuable cropland at a reasonable cost.

MOORE: I hope so. While we're talking about my part of the country, how're you and the State experiment stations coming along with the new hybrid corn for the South?

AUCHTER: Coming along fine! It's already in commercial production in five States Tennessee, Louisiana, Florida, Texas and North Carolina.

MOORE: Do you suppose it will increase yields in the South as much as it did in the Corn Belt?

AUCHTER: Even more so. I believe one of the biggest developments of the near future will be the spread of hybrid corn to the South. And you're also going to hear more about hybrid alfalfa and hybrid onions. With hybrid onions a farmer can increase yields by as much as 20 to 50 percent.

MOORE: You don't say!

AUCHTER: Now they've developed an onion resistant to thrips -- and they're working on other crops that will resist insects. Corn, wheat, sugarcane, alfalfa, sorghum.

DUMARS: Dr. Auchter, what are the chances of getting a snapbean resistant to beetles?

AUCHTER: Well, maybe it can be done. Scientists can do some remarkable things. You know they're breeding vegetables for vitamins.

DUMARS: That right?

AUCHTER: Yes, they've already developed some cabbages unusually rich in vitamin C.

DUMARS: Ernie, there's some news for your Victory gardeners.

MOORE: Yes sir! And before we get clear off the subject of plants -- this goes back to the hybrids -- aren't you doing some cross-breeding with animals?

AUCHTER: Yes, the work on hybrid corn quite naturally led to similar research on animals. So far the results are very promising. The pigs make rapid gains. They put on weight with less feed than any pigs that we have ever had before. Ernie, you ought to have a report on livestock research.

MOORE: We're going to. It's on our list.

AUCHTER: Be sure to mention phenothiazine.

MOORE: We certainly will.

DUMARS: What is phenothiazine?

AUCHTER: It's the best drug yet discovered for controlling internal parasites of livestock. In fact, it's saving the livestock men at least 10 million dollars a year. Another thing you ought to report on is the dairy work -- the breeding program.

MOORE: It surely has stepped up milk production.

AUCHTER: Just to show you how breeding contributes to the production of milk, the average cow in the research herd at Beltsville produces an average of 16,000 pounds of milk a year. The average cow in a Dairy Herd Improvement Association -- 8,000 pounds. But the average cow in the farmer's herd -- a little less than 5,000 pounds.

MOORE: We'll have the whole story. You just give us time and we may get around to all your projects.

AUCHTER: Be sure to tell about the nutrition work. The Bureau of Human Nutrition and Home Economics has made surveys of the food used by people of differen income levels. These figures have been of great help in wartime plans for food rationing and distribution.

MOORE: We're going to bring that in too, later on. Also the work in home economics.

AUCHTER: I suppose you've had a report on penicillin.

MOORE: Yes, we told how the scientists in Peoria -- at the Department's Northern Regional Laboratory — increased the yield of penicillin 150 times.

AUCHTER: That's one of the biggest achievements of the past few years -- getting penicillin into large-scale production. It's saving thousands of lives and untold suffering. That's the kind of research you can't measure in dollars and cents.

MOORE: No, you can't.

AUCHTER: And while we're talking about research done in the Northern Laboratory, did you happen to see these bottle caps here on my desk?

MOORE: Yes. Duke was wondering whether you col -—

DUMARS: Of course they have some connection with research!

AUCHTER: Cah you tell what they're lined with?

DUMARS: It might be cork.

AUCHTER: No, cork is pretty hard to get right now. This is a cork substitute. It's called "noreseal."

DUMARS: What's it made of?

AUCHTER: Peanut hulls. They're ground into a paste and mixed with some other things. For some uses noreseal is a very good substitute for cork.

MOORE: What about these paper bags here that seem to be filled with a dry soup mixture?

AUCHTER: Can you tell what they're coated with?

DUMARS: They're evidently moistureproof.

AUCHTER: They are. They're coated with "norelac." It's made from soybean oil. If you ever visit the laboratory in Peoria, you'll see a good many other uses for norelac.

MOORE: Dr. Auchter, strikes me here's a mighty good chance to point out the purpose of your four regional laboratories.

DUMARS: They're really more than laboratories.

AUCHTER: I suppose most people think of a laboratory as a place full of test tubes and Bunsen burners.

MOORE: It's the only kind of "lab" most people ever see.

AUCHTER: Well, in addition to test tubes and Bunsen burners, our four regional laboratories -- in Louisiana, Pennsylvania, Illinois, and California -- include what are really small-scale factories. They're places where research workers can iron out a lot of kinks that might otherwise prevent large-scale production.

You might say they're connecting links -- between farm crops and the big commercial plants. In the Western Laboratory -- at Albany, California -- they've recently worked out a new use for fully ripe fruit. For plums, berries, cantaloupes and so on that are just ripe enough to eat but too ripe to ship.

DUMARS: What do they do with 'em?

AUCHTER: Make them into a dessert called "Velva Fruit."

DUMARS: Have any samples?

AUCHTER: No, I'm afraid it wouldn't keep very long in a warm room like this.

MOORE: It's frozen, Duke.

DUMARS: What's in it?

AUCHTER: Nothing but the frozen fruit puree, sugar, and a little gelatin. You can make it yourself if you have an automatic refrigerator.

MOORE: Or an ice-cream freezer.

AUCHTER: Either one's all right. If you want directions, see our home economists They've worked out good directions for making Velva Fruit at home.

MOORE: And I might add, that's only one angle of the work they're doing on foods and nutrition.

AUCHTER: Yes, only one small angle. And while we're on the subject of food, here's something to think about. Our country, in spite of the war, has produced enough food for the people at home, for the armed forces, and to help feed our fighting allies. The credit for this tremendous job goes to the farmer -- but it's partly due to the fact that he's smart enough to take advantage of farm research and put it into practice.

MOORE: And so "farm science serves the nation" -- and the world. We thank you very much, Dr. Auchter.

ANNOUNCER: (LIVE) You've heard a discussion by Ernie Moore, Duke DuMars, and their special guest -- Dr. Eugene C. Auchter, head of the Agricultural Research Administration of the United States Department of Agriculture. This is number 5 in a series on how "Farm Science Serves the Nation."

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